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L9
    ANSWER 1 OF 2 CAPLUS COPYRIGHT 2009 ACS on STN
ΑN
    2005:1154407 CAPLUS Full-text
DN
    143:427370
    Maytansinoid analogs as antitumor agents
ΤI
    Cassady, John M.; Floss, Heinz G.
IN
    The Ohio State University Research Foundation, USA
PA
SO
    PCT Int. Appl., 18 pp.
    CODEN: PIXXD2
DT
    Patent
LA
    English
FAN.CNT 1
    PATENT NO.
                       KIND
                               DATE
                                         APPLICATION NO.
                               _____
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                                           _____
    WO 2005099754 A2 20051027 WO 2005099754 A3 20060309
                                          WO 2005-US11441
                                                                  20050404
PΤ
                        A3 20060309
    WO 2005099754
        W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,
            CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,
            GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ,
            LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA,
            NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL,
            SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA,
            ZM, ZW
        RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM,
            AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK,
            EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT,
            RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML,
            MR, NE, SN, TD, TG
                     A1
                            20081009
                                          US 2008-599930
    US 20080249085
                                                                  20080425
                        P
PRAI US 2004-562119P
                               20040414
    WO 2005-US11441
                       W
                               20050404
ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT
    MARPAT 143:427370
AΒ
     Ansamycin analogs, including maytansinoid analogs, and their use in treating
     cell proliferative diseases and conditions, and in particular, for use as
     antitumor agents are disclosed.
    868076-22-6P
ΙT
                  868076-23-7P
    RL: BPN (Biosynthetic preparation); PNU (Preparation, unclassified); THU
     (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES
     (Uses)
        (maytansinoid analogs as antitumor agents)
RN
    868076-22-6 CAPLUS
CN
    Maytansine, 2'-de(acetylmethylamino)-20-demethoxy-18,20-dihydro-2'-methyl-
    18,20-dioxo- (CA INDEX NAME)
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RN 868076-23-7 CAPLUS

CN Maytansine, 2'-de(acetylmethylamino)-20-demethoxy-21-[[2-(dimethylamino)ethyl]amino]-17,20-dihydro-2'-methyl-17,20-dioxo-(9CI)(CA INDEX NAME)

Absolute stereochemistry. Double bond geometry as shown.

RE.CNT 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2009 ACS on STN

AN 1984:121094 CAPLUS Full-text

DN 100:121094

OREF 100:18433a,18436a

TI Maytansinoid compounds

PA Takeda Chemical Industries, Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 10 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

T T TTA .	CIVI I						
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE		
ΡI	JP 58167592	A	19831003	JP 1982-49836	19820326		
	JP 01052397	В	19891108				
PRAI	JP 1982-49836		19820326				
GT							

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Twenty-three maytansinoid compds. I [R = alkyl; X = Q, Q1, Q2, Q3 (R1, R2 = H, alkyl; R1R2 may be CH2)] were prepared by oxidation of II optionally followed by reduction and alkylation. I had mitosis inhibitory, anticarcinogenic, antifungal, and anti-protozoa activities (no data). Thus, treatment of 1.24 g II (R = Me2CH) in MeOH containing KH2PO4 with 250 mL Flemy's salt-saturated H2O for 3 h followed by SiO2 gel thin layer chromatog. of the product (22 mg) gave 18 mg I (R = Me2CH, X = Q) and I (R = Me2CH, X = Q1).

IT 89153-72-0P 89153-73-1P

RN 89153-72-0 CAPLUS

CN Maytansine, 2'-de(acetylmethylamino)-20-demethoxy-17,20-dihydro-17,20-dioxo- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

CN Maytansine, 3-O-de[2-(acetylmethylamino)-1-oxopropy1]-20-demethoxy-17,20-dihydro-3-O-(3-methyl-1-oxobutyl)-17,20-dioxo- (CA INDEX NAME)

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L14 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2009 ACS on STN
ΑN
    2005:1154407 CAPLUS Full-text
DN
    143:427370
ΤI
    Maytansinoid analogs as antitumor agents
    Cassady, John M.; Floss, Heinz G.
IN
    The Ohio State University Research Foundation, USA
PA
SO
    PCT Int. Appl., 18 pp.
    CODEN: PIXXD2
DT
    Patent
LA
    English
FAN.CNT 1
    PATENT NO.
                       KIND
                               DATE
                                         APPLICATION NO.
                               _____
                        ____
                                           _____
                                                                  _____
    WO 2005099754 A2 20051027 WO 2005099754 A3 20060309
                                          WO 2005-US11441
                                                                  20050404
PΤ
                        A3 20060309
    WO 2005099754
        W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,
            CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,
            GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ,
            LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA,
            NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL,
            SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA,
            ZM, ZW
        RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM,
            AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK,
            EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT,
            RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML,
            MR, NE, SN, TD, TG
                     A1
                                          US 2008-599930
    US 20080249085
                            20081009
                                                                  20080425
                        P
PRAI US 2004-562119P
                               20040414
    WO 2005-US11441
                       W
                               20050404
ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT
    MARPAT 143:427370
AΒ
     Ansamycin analogs, including maytansinoid analogs, and their use in treating
     cell proliferative diseases and conditions, and in particular, for use as
     antitumor agents are disclosed.
    868076-22-6P
                  868076-23-7P 868076-24-8P
ΙT
    868076-25-9P
    RL: BPN (Biosynthetic preparation); PNU (Preparation, unclassified); THU
     (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES
     (Uses)
        (maytansinoid analogs as antitumor agents)
RN
    868076-22-6 CAPLUS
CN
    Maytansine, 2'-de(acetylmethylamino)-20-demethoxy-18,20-dihydro-2'-methyl-
    18,20-dioxo- (CA INDEX NAME)
```

RN 868076-23-7 CAPLUS

CN Maytansine, 2'-de(acetylmethylamino)-20-demethoxy-21-[[2-(dimethylamino)ethyl]amino]-17,20-dihydro-2'-methyl-17,20-dioxo-(9CI)(CA INDEX NAME)

Absolute stereochemistry. Double bond geometry as shown.

RN 868076-24-8 CAPLUS

CN Maytansine, 2'-de(acetylmethylamino)-19-dechloro-4,5-deepoxy-4,5-didehydro-20-demethoxy-22-demethyl-21-[[2-(dimethylamino)ethyl]amino]-17,20-dihydro-2'-methyl-17,20-dioxo-, (4E)- (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as described by E or Z.

RN 868076-25-9 CAPLUS

CN Maytansine, 2'-de(acetylmethylamino)-19-dechloro-4,5-deepoxy-4,5-didehydro-20-demethoxy-22-demethyl-17,20-dihydro-2'-methyl-17,20-dioxo-, (4E)- (CA INDEX NAME)

Absolute stereochemistry. Double bond geometry as described by ${\tt E}$ or ${\tt Z}$.

RE.CNT 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L14 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2009 ACS on STN

AN 1984:121094 CAPLUS Full-text

DN 100:121094

OREF 100:18433a,18436a

TI Maytansinoid compounds

PA Takeda Chemical Industries, Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 10 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

T T TTA .	CIVI I						
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE		
ΡI	JP 58167592	A	19831003	JP 1982-49836	19820326		
	JP 01052397	В	19891108				
PRAI	JP 1982-49836		19820326				
GT							

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Twenty-three maytansinoid compds. I [R = alkyl; X = Q, Q1, Q2, Q3 (R1, R2 = H, alkyl; R1R2 may be CH2)] were prepared by oxidation of II optionally followed by reduction and alkylation. I had mitosis inhibitory, anticarcinogenic, antifungal, and anti-protozoa activities (no data). Thus, treatment of 1.24 g II (R = Me2CH) in MeOH containing KH2PO4 with 250 mL Flemy's salt-saturated H2O for 3 h followed by SiO2 gel thin layer chromatog. of the product (22 mg) gave 18 mg I (R = Me2CH, X = Q) and I (R = Me2CH, X = Q1).

IT 89153-72-0P 89153-73-1P

RN 89153-72-0 CAPLUS

CN Maytansine, 2'-de(acetylmethylamino)-20-demethoxy-17,20-dihydro-17,20-dioxo- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

CN Maytansine, 3-O-de[2-(acetylmethylamino)-1-oxopropy1]-20-demethoxy-17,20-dihydro-3-O-(3-methyl-1-oxobutyl)-17,20-dioxo- (CA INDEX NAME)

L19 ANSWER 1 OF 18 CAPLUS COPYRIGHT 2009 ACS on STN

ΑN 2009:1266638 CAPLUS Full-text

DN 151:446290

ΤI Novel ansamitocin derivatives

Sasse, Florenz; Kirschning, Andreas; Grond, Stephanie ΙN

PΑ Leibniz Universitat Hannover, Germany; Helmholtz-Zentrum fuer Infektionsforschung GmbH; Georg-August-Universitat Goettingen

U.S. Pat. Appl. Publ., 16pp. SO

CODEN: USXXCO

Patent DT

English LA

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE		
ΡI	US 20090258870	A1	20091015	US 2009-408568	20090320		
PRAI	US 2008-70120P	P	20080320				

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

OS CASREACT 151:446290; MARPAT 151:446290

AΒ Provided are among other things ansamitocin derivs., pharmaceutical compns. comprising these novel ansamitocin derivs., methods for the production of the ansamitocin derivs. and their use for the treatment of cancer.

ΙT 1187832-14-9

> RL: RCT (Reactant); RACT (Reactant or reagent) (novel ansamitocin derivs.)

1187832-14-9 CAPLUS RN

Maytansine, 2'-de(acetylmethylamino)-19-dechloro-19-hydroxy-2'-methyl-CN (CA INDEX NAME)

Absolute stereochemistry.

L19 ANSWER 2 OF 18 CAPLUS COPYRIGHT 2009 ACS on STN

AN 2009:1155108 CAPLUS Full-text

DN 151:381095

TI Preparation of ansamitocin derivatives as antitumor agents

IN Sasse, Florenz; Kirschning, Andreas; Grond, Stephanie

PA Leibniz Universitaet Hannover, Germany; Helmholtz-Zentrum fuer Infektionsforschung GmbH; Georg-August-Universitaet Goettingen

SO Eur. Pat. Appl., 27pp.

CODEN: EPXXDW

DT Patent

LA English

FAN.CNT 1

T T 7 T A • (TINT																	
	PAT	TENT :	NO.			KIN	D	DATE			APPL	ICAT	ION 1	NO.		DZ	ATE	
ΡI	EP	2103	 618			A1	_	2009	 0923		EP 2	008-	5327			21	00803	320
		R:	ΑT,	BE,	BG,	CH,	CY,	CZ,	DE,	DK,	EE,	ES,	FI,	FR,	GB,	GR,	HR,	HU,
			ΙE,	IS,	IT,	LI,	LT,	LU,	LV,	MC,	MT,	NL,	NO,	PL,	PT,	RO,	SE,	SI,
			SK,	TR,	AL,	BA,	MK,	RS										
PRAI	ΕP	2008	-532	7				2008	0320									
			a = a .	2040	o г													

OS MARPAT 151:381095

GΙ

AB Ansamitocin derivs. of formula I [R1 = H, halo, alkyl, cycloalkyl, etc.; R2 = H, halo, OH, NH2, SH, alkyl, etc.; R1R2 = (hetero)alkylene, etc.; R3 = H, F; R4 = H, Me; A = bond, O; Y = Me, iso-Pr, isobutyl] are prepared, by fermentation or chemical methods, for the treatment of cancer. Thus, II was prepared, and had IC50 = 0.18 ng/mL against KB-3-1 cervix carcinoma cell line.

IT 1187832-14-9

RL: RCT (Reactant); RACT (Reactant or reagent) (preparation of ansamitocin derivs. as antitumor agents)

RN 1187832-14-9 CAPLUS

CN Maytansine, 2'-de(acetylmethylamino)-19-dechloro-19-hydroxy-2'-methyl-(CA INDEX NAME)

RE.CNT 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

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L19
    ANSWER 3 OF 18 CAPLUS COPYRIGHT 2009 ACS on STN
ΑN
    2005:1154407 CAPLUS Full-text
DN
    143:427370
    Maytansinoid analogs as antitumor agents
ΤI
    Cassady, John M.; Floss, Heinz G.
IN
    The Ohio State University Research Foundation, USA
PA
SO
    PCT Int. Appl., 18 pp.
    CODEN: PIXXD2
DT
    Patent
LA
    English
FAN.CNT 1
    PATENT NO.
                       KIND
                               DATE
                                         APPLICATION NO.
                               _____
                        ____
                                           _____
    WO 2005099754
                       A2 20051027
                                         WO 2005-US11441
                                                                 20050404
PΤ
    WO 2005099754
                        A3 20060309
        W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,
            CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,
            GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ,
            LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA,
            NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL,
            SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA,
            ZM, ZW
        RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM,
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            EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT,
            RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML,
            MR, NE, SN, TD, TG
                     A1
                                         US 2008-599930
    US 20080249085
                             20081009
                                                                 20080425
                        P
PRAI US 2004-562119P
                               20040414
    WO 2005-US11441
                        W
                               20050404
ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT
    MARPAT 143:427370
AΒ
     Ansamycin analogs, including maytansinoid analogs, and their use in treating
     cell proliferative diseases and conditions, and in particular, for use as
     antitumor agents are disclosed.
    868076-26-0P
ΙT
    RL: BPN (Biosynthetic preparation); PNU (Preparation, unclassified); THU
     (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES
     (Uses)
        (maytansinoid analogs as antitumor agents)
    868076-26-0 CAPLUS
RN
CN
    Propanoic acid, 2-methyl-, (7R,8S,12S,13S,16S)-8,22-dihydroxy-7-methoxy-
    3,13,15-trimethyl-10,18-dioxo-11-oxa-9,19-
    diazatricyclo[18.3.1.18,12]pentacosa-1(24),3,5,14,20,22-hexaen-16-yl ester
       (CA INDEX NAME)
Absolute stereochemistry.
Double bond geometry as described by E or Z.
```

RE.CNT 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

- L19 ANSWER 4 OF 18 CAPLUS COPYRIGHT 2009 ACS on STN
- AN 2005:273106 CAPLUS Full-text
- DN 142:475230
- TI Metabolism studies of the anti-tumor agent maytansine and its analog ansamitocin P-3 using liquid chromatography/tandem mass spectrometry
- AU Liu, Zhongfa; Floss, Heinz G.; Cassady, John M.; Chan, Kenneth K.
- CS College of Pharmacy, Ohio State University, Columbus, OH, 43210, USA
- SO Journal of Mass Spectrometry (2005), 40(3), 389-399 CODEN: JMSPFJ; ISSN: 1076-5174
- PB John Wiley & Sons Ltd.
- DT Journal
- LA English
- Maytansine, a potent clin. evaluated plant-derived antitumor drug, and its AΒ microbial counterpart, ansamitocin P-3, showed a substantially higher cytotoxicity than many other antitumor drugs. Owing to a shortage of material and lack of sufficiently sensitive anal. methods at the time, no metabolism studies were apparently carried out in conjunction with the initial preclin. and clin. studies on maytansine, but some products of decomposition during the period of storage of the formulated drug were reported. In the current study, the in vitro metabolism of maytansine and ansamitocin P-3 was studied after incubation with rat and human liver microsomes in the presence of NADPH, and with rat and human plasma and whole blood, using liquid chromatog./multi-stage mass spectrometry. Unchanged ansamitocin P-3 and 11 metabolites and unchanged maytansine and seven metabolites were profiled and the structures of some metabolites were tentatively assigned based on their multi-stage electrospray ion-trap mass fragmentation data and in some cases accurate mass measurement. The major pathway of ansamitocin P-3 metabolism in human liver microsomes appears to be demethylation at C-10. Oxidation and sequential oxidation/demethylation also occurred, although to a lesser extent. However, the major pathway of maytansine metabolism in human liver microsomes is Ndemethylation of the methylamide of the ester moiety. Several minor pathways including O/N-demethylation, oxidation and hydrolysis of the ester bond were also observed There were no differences in maytansine metabolism between rat and human liver microsomes; however, the rate of metabolism of ansamitocin P-3was different in rat and human liver microsomes. About 20% of ansamitocin P-3 was converted to its metabolites in rat liver microsomes and about 70% in human liver microsomes under the same conditions. Addnl., 10-O-demethylated ansamitocin P-3 was also detected in the urine after i.v. bolus administration of ansamitocin P-3 to Sprague-Dawley male rats. No metabolites were detected following incubation of maytansine and ansamitocin P-3 with human and rat whole blood and plasma.
- IT 72902-38-6 851860-10-1 851860-11-2
 - RL: BSU (Biological study, unclassified); BIOL (Biological study) (metabolism studies of antitumor agent maytansine and its analog ansamitocin P-3 using liquid chromatog./tandem mass spectrometry)
- RN 72902-38-6 CAPLUS
- CN Maytansine, 2'-de(acetylmethylamino)-O20-demethyl-2'-methyl- (9CI) (CF INDEX NAME)

RN 851860-10-1 CAPLUS

CN Maytansine, 2'-de(acetylmethylamino)-20-O-demethyl-15-hydroxy-2'-methyl-(9CI) (CA INDEX NAME)

Absolute stereochemistry. Double bond geometry as shown.

RN 851860-11-2 CAPLUS

CN Maytansine, 2'-de(acetylmethylamino)-20-0-demethyl-30-hydroxy-2'-methyl-(9CI) (CA INDEX NAME)

OSC.G 8 THERE ARE 8 CAPLUS RECORDS THAT CITE THIS RECORD (8 CITINGS)
RE.CNT 26 THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L19 ANSWER 5 OF 18 CAPLUS COPYRIGHT 2009 ACS on STN

AN 2003:860618 CAPLUS Full-text

DN 140:73150

TI The Post-Polyketide Synthase Modification Steps in the Biosynthesis of the Antitumor Agent Ansamitocin by Actinosynnema pretiosum

AU Spiteller, Peter; Bai, Linquan; Shang, Guangdong; Carroll, Brian J.; Yu, Tin-Wein; Floss, Heinz G.

CS Department of Chemistry, University of Washington, Seattle, WA, 98195-1700, USA

SO Journal of the American Chemical Society (2003), 125(47), 14236-14237 CODEN: JACSAT; ISSN: 0002-7863

PB American Chemical Society

DT Journal

LA English

AB The functions of six genes in the ansamitocin biosynthetic gene cluster of Actinosynnema pretiosum have been investigated by gene inactivation and chemical anal. of the mutants. They encode a halogenase (asm12), a carbamoyltransferase (asm21), a 20-0-methyltransferase (asm7), a 3-0-acyltransferase (asm19), an epoxidase (asm11), and an N-methyltransferase (asm10), resp., and are responsible for the six post-PKS modification steps in ansamitocin formation. Several of the enzymes have relaxed substrate specificities, resulting in multiple parallel pathways in a metabolic grid, albeit with a preferred sequence of reactions as listed above.

IT 72902-38-6 637777-94-7 637777-97-0

RL: BSU (Biological study, unclassified); BIOL (Biological study) (gene inactivation anal. addresses post-polyketide synthase steps in ansamitocin biosynthetic gene cluster of Actinosynnema pretiosum)

RN 72902-38-6 CAPLUS

CN Maytansine, 2'-de(acetylmethylamino)-020-demethyl-2'-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Double bond geometry as shown.

RN 637777-94-7 CAPLUS

CN Maytansine, 2'-de(acetylmethylamino)-20-O-demethyl-2'-methyl- (9CI) (CA INDEX NAME)

RN 637777-97-0 CAPLUS

CN Propanoic acid, 2-methyl-, (7R,8S,12S,13S,16R)-8,22-dihydroxy-7-methoxy-3,13,15-trimethyl-10,18-dioxo-11-oxa-9,19-diazatricyclo[18.3.1.18,12]pentacosa-1(24),3,5,14,20,22-hexaen-16-yl ester (CA INDEX NAME)

Absolute stereochemistry. Double bond geometry as described by ${\tt E}$ or ${\tt Z}$.

OSC.G 18 THERE ARE 18 CAPLUS RECORDS THAT CITE THIS RECORD (18 CITINGS)
RE.CNT 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L19 ANSWER 6 OF 18 CAPLUS COPYRIGHT 2009 ACS on STN

AN 1993:573688 CAPLUS Full-text

DN 119:173688

OREF 119:30807a,30810a

TI A fluorescent probe and a photoaffinity labeling reagent to study the binding site of maytansine and rhizoxin on tubulin

AU Sawada, Takayuki; Kato, Yuzo; Kobayashi, Hisayoshi; Hashimoto, Yuichi; Watanabe, Tohru; Sugiyama, Yuichi; Iwasaki, Shigeo

CS Inst. Mol. Cell. Biosci., Univ. Tokyo, Tokyo, 113, Japan

SO Bioconjugate Chemistry (1993), 4(4), 284-9 CODEN: BCCHES; ISSN: 1043-1802

DT Journal

LA English

A fluorescent probe (20-demethoxy-20-[3-[[[5-(dimethylamino)naphthalen-1-AΒ yl]sulfonyl]amino]propyl]maytansinol 3-isobutyrate, Dan-PDM-3) and a photoaffinity labeling reagent (20-demethoxy-20-[(pazidobenzoyl)oxy]maytansinol 3-isobutyrate, DABMI) were prepared by derivatization of ansamitocin P-3 (ASMP-3), a maytansinoid. Dan-PDM-3-consists of a tethered dansyl moiety and a maytansinoid moiety. DABMI contains a pazidobenzoyl group instead of the tethered dansyl moiety of Dan-PDM-3. These compds. were synthesized by reacting 20-demethoxy-20-hydroxymaytansinol-3 isobutyrate (PDM-3) with the corresponding alkyl halide or benzoic acid. Both inhibit tubulin polymerization as potently as ASMP-3 and compete with ASMP-3 for binding to tubulin. The inhibition consts. (Ki) of DABMI for the binding to tubulin of rhizoxin and ASMP-3 were 0.54 and $0.36~\mu\mathrm{M}$, resp., which were nearly equal to the dissociation constant (Kd = $0.43~\mu M$) of DABMI measured by the use of [14C]DABMI. The results suggest that Dan-PDM-3 and DABMI interacted with tubulin at the same site as rhizoxin and maytansine. irreversibly bound to tubulin upon irradiation Dan-PDM-3 and DABMI should be useful probes for studying the binding site.

IT 72902-38-6

RL: RCT (Reactant); RACT (Reactant or reagent) (reactions of, with alkyl halide or benzoic acid)

RN 72902-38-6 CAPLUS

CN Maytansine, 2'-de(acetylmethylamino)-O20-demethyl-2'-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.

OSC.G 14 THERE ARE 14 CAPLUS RECORDS THAT CITE THIS RECORD (14 CITINGS)

L19 ANSWER 7 OF 18 CAPLUS COPYRIGHT 2009 ACS on STN

AN 1990:216514 CAPLUS Full-text

DN 112:216514

OREF 112:36537a,36540a

TI Studies on structure-activity relationships of mitotic poisons and their binding sites on tubulin

AU Kato, Yuzo; Ogawa, Yuji; Takahashi, Masaaki; Kobayashi, Hisayoshi; Iwasaki, Shigeo; Sugiyama, Yuichi

CS Inst. Appl. Microbiol., Univ. Tokyo, Tokyo, Japan

SO Tennen Yuki Kagobutsu Toronkai Koen Yoshishu (1989), 31st, 236-43 CODEN: TYKYDS

DT Journal

LA Japanese

AB A report from a symposium describing the synthesis of derivs. of rhizoxin and 20-demethoxy-20-hydroxyansamitocin P-3 and their tubulin polymerization inhibitor activity. The structure activity relationships and their binding sites on tubulin were also discussed.

IT 72902-38-6DP, derivs.

RL: PREP (Preparation)

(preparation and tubulin polymerization inhibitor activity of)

RN 72902-38-6 CAPLUS

CN Maytansine, 2'-de(acetylmethylamino)-020-demethyl-2'-methyl- (9CI) (CA INDEX NAME)

L19 ANSWER 8 OF 18 CAPLUS COPYRIGHT 2009 ACS on STN

AN 1984:121094 CAPLUS Full-text

DN 100:121094

OREF 100:18433a,18436a

TI Maytansinoid compounds

PA Takeda Chemical Industries, Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 10 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

T T TTA .	CIVI I						
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE		
ΡI	JP 58167592	A	19831003	JP 1982-49836	19820326		
	JP 01052397	В	19891108				
PRAI	JP 1982-49836		19820326				
GT							

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Twenty-three maytansinoid compds. I [R = alkyl; X = Q, Q1, Q2, Q3 (R1, R2 = H, alkyl; R1R2 may be CH2)] were prepared by oxidation of II optionally followed by reduction and alkylation. I had mitosis inhibitory, anticarcinogenic, antifungal, and anti-protozoa activities (no data). Thus, treatment of 1.24 g II (R = Me2CH) in MeOH containing KH2PO4 with 250 mL Flemy's salt-saturated H2O for 3 h followed by SiO2 gel thin layer chromatog. of the product (22 mg) gave 18 mg I (R = Me2CH, X = Q) and I (R = Me2CH, X = Q1).

IT 89153-74-2P 89153-75-3P 89153-76-4P 89153-77-5P 89153-78-6P 89153-79-7P 89153-80-0P 89153-81-1P 89153-82-2P 89153-83-3P 89153-88-8P 89153-89-9P

RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation of)

RN 89153-74-2 CAPLUS

CN Maytansine, 2'-de(acetylmethylamino)-20-O-demethyl-21-hydroxy-2'-methyl-(CA INDEX NAME)

Absolute stereochemistry.

RN 89153-75-3 CAPLUS

CN Maytansine, 3-0-de[2-(acetylmethylamino)-1-oxopropyl]-20-0-demethyl-21-hydroxy-3-0-(3-methyl-1-oxobutyl)- (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.

RN 89153-76-4 CAPLUS

CN Maytansine, 2'-de(acetylmethylamino)-21-hydroxy-2'-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.

RN 89153-77-5 CAPLUS

CN Maytansine, 2'-de(acetylmethylamino)-20-0-demethyl-21-methoxy-2'-methyl-(CA INDEX NAME)

Absolute stereochemistry.

RN 89153-78-6 CAPLUS

CN Maytansine, 2'-de(acetylmethylamino)-21-hydroxy-2'-methyl-31-phenyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Double bond geometry as shown.

RN 89153-79-7 CAPLUS

CN Maytansine, 2'-de(acetylmethylamino)-20-0-demethyl-2'-methyl-21-(phenylmethoxy)- (CA INDEX NAME)

RN 89153-80-0 CAPLUS

CN Maytansine, 3-O-de[2-(acetylmethylamino)-1-oxopropyl]-20-O-demethyl-21-hydroxy-3-O-(3-methyl-1-oxobutyl)-20-O-(2-oxo-2-phenylethyl)- (CA INDEX NAME)

Absolute stereochemistry. Double bond geometry as shown.

RN 89153-81-1 CAPLUS

CN Maytansine, 3-0-de[2-(acetylmethylamino)-1-oxopropyl]-20-0-demethyl-3-0-(3-methyl-1-oxobutyl)-21-(2-oxo-2-phenylethoxy)- (CA INDEX NAME)

RN 89153-82-2 CAPLUS

CN Maytansine, 3-O-de[2-(acetylmethylamino)-1-oxopropyl]-21-hydroxy-3-O-(3-methyl-1-oxobutyl)-31-(methylthio)- (CA INDEX NAME)

Absolute stereochemistry. Double bond geometry as shown.

RN 89153-83-3 CAPLUS

CN Maytansine, 3-0-de[2-(acetylmethylamino)-1-oxopropyl]-20-0-demethyl-3-0-(3-methyl-1-oxobutyl)-21-[(methylthio)methoxy]- (CA INDEX NAME)

RN 89153-88-8 CAPLUS

CN Maytansine, 2'-de(acetylmethylamino)-20-O-demethyl-17-hydroxy- (CA INDEX NAME)

Absolute stereochemistry. Double bond geometry as shown.

RN 89153-89-9 CAPLUS

CN Maytansine, 2'-de(acetylmethylamino)-20-0-demethyl-17-hydroxy-2'-methyl-(CA INDEX NAME)

RN 72902-38-6 CAPLUS

CN Maytansine, 2'-de(acetylmethylamino)-020-demethyl-2'-methyl- (9CI) (CA INDEX NAME)

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L19 ANSWER 9 OF 18 CAPLUS COPYRIGHT 2009 ACS on STN
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AN 1983:214129 CAPLUS Full-text

DN 98:214129

OREF 98:32539a,32542a

- TI Fermentative preparation of demethylmaytansinoids
- IN Asai, Mitsuko; Nakahama, Kazuo; Izawa, Motowo
- PA Takeda Chemical Industries, Ltd., Japan
- SO U.S., 32 pp. Division of U.S. 4,307,016. CODEN: USXXAM
- DT Patent
- LA English

FAN.CNT 3

	PA:	TENT NO.	KIND	DATE	APPLICATION NO.	DATE		
ΡI	US	4361650	 А	19821130	US 1981-290943	19810807		
	JP	54128598	A	19791005	JP 1978-34645	19780324		
	JP	55085592	A	19800627	JP 1978-160787	19781222		
	JP	62013958	В	19870330				
	ZA	7901350	A	19800430	ZA 1979-1350	19790321		
	JΡ	62013959	В	19870330	JP 1979-119959	19790917		
	JP	55118490	A	19800911				
	US	4307016	A	19811222	US 1980-153522	19800527		
PRAI	JP	1978-34645	A	19780324				
	JP	1978-160787	A	19781222				
	US	1979-19612	A2	19790312				
	KR	1979-2968	U	19790830				
	JP	1979-119959	A	19790917				
	US	1980-153522	A3	19800527				
	GR	1979-58533	A	19790307				

AB Novel demethylmaytansinoids (I; X = Cl or H; R = H or acyl) are produced from maytansinoids by microbial transformation. Thus, Bacillus megaterium (FO 12108 was inoculated into a pH 7.5 medium containing dextrin 2, peptone 0.5, yeast extract 0.5, and meat extract 0.5% and shake-cultured at 30° for 16 h. To 2.75 L of this culture, 110 mg ansamitocin P-4 was added and cultivation was continued for 51 h. At this time, I had disappeared and PDM-4 had appeared in the medium. The demethylmaytansinoids have fungicidal, protozoacidal, and antitumor activities.

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ΙT
    72902-34-2P
                 72902-36-4P
                              72902-38-6P
    72902-42-2P 72902-46-6P
                             72902-47-7P
    72902-48-8P 72902-49-9P
                               72902-50-2P
    72902-51-3P 72902-52-4P
                               72902-53-5P
                 72902-68-2P
                               72902-69-3P
    72902-67-1P
    72911-47-8P 72925-67-8P
                              72937-57-6P
    72937-58-7P 72938-06-8P
                             76959-54-1P
```

RL: BMF (Bioindustrial manufacture); BIOL (Biological study); PREP (Preparation)

(manufacture of, by microbial demethylation)

RN 72902-34-2 CAPLUS

CN Maytansine, 3-de[2-(acetylmethylamino)-1-oxopropoxy]-020-demethyl-3-(3-methyl-1-oxobutoxy)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 72902-36-4 CAPLUS CN Maytansine, 2'-de(acetylmethylamino)-O20-demethyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Double bond geometry as shown.

RN 72902-38-6 CAPLUS
CN Maytansine, 2'-de(acetylmethylamino)-O20-demethyl-2'-methyl- (9CI) (CA INDEX NAME)

RN 72902-42-2 CAPLUS

CN Maytansine, 3-de[2-(acetylmethylamino)-1-oxopropoxy]-020-demethyl-3-[(1-oxohexyl)oxy]- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Double bond geometry as shown.

RN 72902-46-6 CAPLUS

CN Maytansine, 2'-de(acetylmethylamino)-19-dechloro-020-demethyl-2'-methyl-(9CI) (CA INDEX NAME)

RN 72902-47-7 CAPLUS CN Maytansine, O20-demethyl- (9CI) (CA INDEX NAME)

RN 72902-48-8 CAPLUS
CN Maytansine, N2'-deacetyl-O20-demethyl-N2'-(2-methyl-1-oxopropyl)- (9CI)
(CA INDEX NAME)

RN 72902-49-9 CAPLUS

CN Maytansine, N2'-deacetyl-O20-demethyl-N2'-(3-methyl-1-oxobutyl)-, (2'R)- (9CI) (CA INDEX NAME)

RN 72902-50-2 CAPLUS

CN Maytansine, 3-de[2-(acetylmethylamino)-1-oxopropoxy]-020-demethyl-3-[(1-oxopentyl)oxy]- (9CI) (CA INDEX NAME)

RN 72902-51-3 CAPLUS

CN Maytansine, 3-de[2-(acetylmethylamino)-1-oxopropoxy]-020-demethyl-3-[(1-oxoheptyl)oxy]- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Double bond geometry as shown.

RN 72902-52-4 CAPLUS

CN Maytansine, 3-de[2-(acetylmethylamino)-1-oxopropoxy]-020-demethyl-3-[(1-oxooctyl)oxy]- (9CI) (CA INDEX NAME)

RN 72902-53-5 CAPLUS
CN Maytansine, 2'-de(acetylmethylamino)-O20-demethyl-3'-phenyl- (9CI) (CFINDEX NAME)

Absolute stereochemistry. Double bond geometry as shown.

RN 72902-67-1 CAPLUS CN Maytansine, N2',O20-didemethyl-N2'-(phenylmethyl)- (9CI) (CA INDEX NAME)

RN 72902-68-2 CAPLUS

CN Maytansine, O20-demethyl-3'-phenyl- (9CI) (CA INDEX NAME)

RN 72902-69-3 CAPLUS

CN Maytansine, 3-0-de[2-(acetylmethylamino)-1-oxopropyl]-20-0-demethyl-3-0-(1-oxobutyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 72911-47-8 CAPLUS

CN Maytansine, N2'-deacetyl-O20-demethyl-N2'-(1-oxopropyl)- (9CI) (CA INDEX NAME)

RN 72925-67-8 CAPLUS

CN Maytansine, 3-[[2-(acetylmethylamino)-4-methyl-1-oxopentyl]oxy]-3-de[2-(acetylmethylamino)-1-oxopropoxy]-020-demethyl- (9CI) (CA INDEX NAME)

RN 72937-57-6 CAPLUS CN Maytansine, O20-demethyl-, (2'R)- (9CI) (CA INDEX NAME)

RN 72937-58-7 CAPLUS
CN Maytansine, N2'-deacetyl-O20-demethyl-N2'-(2-methyl-1-oxopropyl)-, (2'R)(9CI) (CA INDEX NAME)

RN 72938-06-8 CAPLUS

CN Maytansine, N2'-deacetyl-O20-demethyl-N2'-(1-oxopropyl)-, (2'R)- (9CI) (CA INDEX NAME)

RN 76959-54-1 CAPLUS

CN Maytansine, 19-dechloro-O20-demethyl-, (2'R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.

OSC.G 4 THERE ARE 4 CAPLUS RECORDS THAT CITE THIS RECORD (5 CITINGS)
RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L19 ANSWER 10 OF 18 CAPLUS COPYRIGHT 2009 ACS on STN

AN 1983:143193 CAPLUS Full-text

DN 98:143193

OREF 98:21805a,21808a

TI 9-Thiomaytansinoids and their use

IN Hashimoto, Naoto; Shimadzu, Hiroshi

PA Takeda Chemical Industries, Ltd., Japan

SO Eur. Pat. Appl., 21 pp.

CODEN: EPXXDW

DT Patent

LA English

FAN.CNT 1

PI EP 65730 A1 19821201 EP 1982-104284 1982053 EP 65730 B1 19860910 R: AT, BE, CH, DE, FR, GB, IT, LU, NL, SE JP 57192389 A 19821126 JP 1981-76993 1981053	
JP 57192389 A 19821126 JP 1981-76993 1981053	 15
TD 01014010 D 10000014	20
JP 01014918 B 19890314	
US 4424219 A 19840103 US 1982-374158 1982050	Э3
AT 22082 T 19860915 AT 1982-104284 1982055	15
CA 1169423 A1 19840619 CA 1982-403181 1982053	18
PRAI JP 1981-76993 A 19810520	
EP 1982-104284 A 19820515	

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

OS MARPAT 98:143193

GΙ

AB 9-Thiomaytansinoids I (R = H, acyl; R1 = H, Cl; R2 = H, alkylsulfonyl, alkyl, aralkyl) were prepared Thus 685 mg ansamitocin P-3 was treated with 246 mg P2S5 to give 387 mg 9-thioansamitocin P-3 which at 200 μ g/kg i.p. increased the lifespan of leukemia P-388-infected mice by 171%.

IT 72902-38-6

RL: RCT (Reactant); RACT (Reactant or reagent)
 (thiolation of)

RN 72902-38-6 CAPLUS

CN Maytansine, 2'-de(acetylmethylamino)-O20-demethyl-2'-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.

OSC.G 3 THERE ARE 3 CAPLUS RECORDS THAT CITE THIS RECORD (3 CITINGS)

L19 ANSWER 11 OF 18 CAPLUS COPYRIGHT 2009 ACS on STN

AN 1982:562706 CAPLUS Full-text

DN 97:162706

OREF 97:27133a,27136a

TI 4,5-Deoxymaytansinoids and their use

IN Akimoto, Hiroshi; Kawai, Akiyoshi

PA Takeda Chemical Industries, Ltd., Japan

SO Eur. Pat. Appl., 31 pp.

CODEN: EPXXDW

DT Patent

LA English

FAN.CNT 1

	PATENT NO.				KIND		DATE		AP:	APPLICATION NO.				DATE
						-							-	
ΡI	EΡ	49528			A1		1982	0414	EP	1981	-10803	30		19811007
		R: AT	, BE,	CH,	DE,	FR	, GB,	ΙΤ,	LU, N	L, SE				
	WO	8201188			A1		1982	0415	WO	1980	-JP24)		19801008
		W: MC												
	US	4371533			A		1983	0201	US	1981	-3067	76		19810929
	JΡ	5709828	6		Α		1982	0618	JP	1981	-1563	53		19810930
	JP	0104891	2		В		1989	1020						
	CA	1160629			A1		1984	0117	CA	1981	-3871	51		19811002
PRAI	WO	1980-JP	240		A		1980	1008						

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

OS MARPAT 97:162706

GΙ

AB Deoxymaytansinoids I (R = H, acyl; R1 = H, C1; R2 = H, alkyl, acyl, sulfonyl, carbamoyl) were prepared Thus maytansinol was treated with TiCl3 and LiAlH4 to give 4,5-deoxymaytansinol which was esterified with Me2CHCO2H to give 4,5-deoxyansamitocin P-3 (II). At 50 μ g/kg i.p. II increased the survival time of melanoma B-16 infected mice to 240%.

IT 82551-40-4P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and esterification of)

RN 82551-40-4 CAPLUS

CN Maytansine, 2'-de(acetylmethylamino)-4,5-deepoxy-4,5-didehydro-20-O-demethyl-2'-methyl-, (4E)- (CA INDEX NAME)

L19 ANSWER 12 OF 18 CAPLUS COPYRIGHT 2009 ACS on STN

AN 1982:160697 CAPLUS Full-text

DN 96:160697

OREF 96:26443a,26446a

TI Demethylation of ansamitocins and related compounds

AU Izawa, Motowo; Nakahama, Kazuo; Kasahara, Fumiko; Asai, Mitsuko; Kishi, Toyokazu

CS Cent. Res. Div., Takeda Chem. Ind., Ltd., Osaka, 532, Japan

SO Journal of Antibiotics (1981), 34(12), 1587-90 CODEN: JANTAJ; ISSN: 0021-8820

DT Journal

LA English

GΙ

The 20-demethyl derivs. (I) of ansamitocins (II) are produced by incubation of the corresponding methylated compound with Bacillus megaterium. The compds. produced in this way include the following: PDM-4 (I, R = COCH2CHMe2), PDM-3 (I, R = COCHMe2), PDM-2 (I, R = COCH2Me), PDM-1 (I, R = COMe), and PDM-0 (I, R = H).

IT 72902-36-4P

RL: PREP (Preparation)

(preparation of, from ansamitocin P-2 with Bacillus megaterium)

RN 72902-36-4 CAPLUS

CN Maytansine, 2'-de(acetylmethylamino)-020-demethyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.

IT 72902-38-6P

RL: PREP (Preparation)

(preparation of, from ansamitocin P-3 with Bacillus megaterium)

RN 72902-38-6 CAPLUS

CN Maytansine, 2'-de(acetylmethylamino)-O20-demethyl-2'-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Double bond geometry as shown.

IT 72902-34-2P

RL: PREP (Preparation)

(preparation of, from ansamitocin P-4 with Bacillus megaterium)

RN 72902-34-2 CAPLUS

CN Maytansine, 3-de[2-(acetylmethylamino)-1-oxopropoxy]-020-demethyl-3-(3-methyl-1-oxobutoxy)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.

OSC.G 5 THERE ARE 5 CAPLUS RECORDS THAT CITE THIS RECORD (6 CITINGS)

L19 ANSWER 13 OF 18 CAPLUS COPYRIGHT 2009 ACS on STN

AN 1982:100646 CAPLUS Full-text

DN 96:100646

OREF 96:16481a,16484a

TI Microbial conversion of ansamitocin

AU Nakahama, Kazuo; Izawa, Motowo; Asai, Mitsuko; Kida, Makoto; Kishi, Toyokazu

CS Cent. Res. Div., Takeda Chem. Ind., Ltd., Osaka, 532, Japan

SO Journal of Antibiotics (1981), 34(12), 1581-6 CODEN: JANTAJ; ISSN: 0021-8820

DT Journal

LA English

OS CASREACT 96:100646

AB Bacteria, actinomycetes, yeasts, and fungi were screened for their ability to modify the structure of ansamitocins, a group of antitumor ansamycin antibiotics. Many strains, mostly actinomycetes, converted ansamitocin P-3 to ≥1 product. These products, compds. A, B, C, and D, were prepared with Bacillus megaterium IFO 12108, Streptomyces coelicolor IFO 3807, Streptomyces castaneus IFO 13670, and Streptomyces minutiscleroticus IFO 13361, and were identified as 20-0-demethylansamitocin P-3, maytansinol, 15-hydroxyansamitocin P-3, and N-demethylansamitocin P-3, resp. Other maytansinoids also underwent these microbial conversions.

IT 72902-38-6

RL: FORM (Formation, nonpreparative)

(formation of, from ansamitocin antibiotic by microorganisms)

RN 72902-38-6 CAPLUS

CN Maytansine, 2'-de(acetylmethylamino)-020-demethyl-2'-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.

OSC.G 5 THERE ARE 5 CAPLUS RECORDS THAT CITE THIS RECORD (5 CITINGS)

L19 ANSWER 14 OF 18 CAPLUS COPYRIGHT 2009 ACS on STN

AN 1981:532912 CAPLUS Full-text

DN 95:132912

OREF 95:22263a,22266a

TI Maytansinoid compounds

PA Takeda Chemical Industries, Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 10 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
ΡI	JP 56020592	A	19810226	JP 1979-97779	19790730
	US 4309428	A	19820105	US 1980-171459	19800723
	EP 25496	A1	19810325	EP 1980-104413	19800726
	R: AT, BE, CH,	DE, FR	, GB, IT, LU	, NL, SE	
	CA 1147680	A1	19830607	CA 1980-357234	19800729
PRA	I JP 1979-97779	A	19790730		
	JP 1980-78142	A	19800609		
ASS	SIGNMENT HISTORY FOR U	S PATEN	T AVATLABLE	IN LSUS DISPLAY FORMAT	

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

AB Eighteen maytansinoid compds. I [R = (un)substituted alkyl; R1 = H, C1] (II) were prepared by alkylation of I (R = H). II had anticarcinogenic, antifungal, antiprotozoa, and antibacterial activities (5-100 μ g/kg). Thus, a mixture of 31 mg I (R = H, R1 = C1), 50 μ L N NaOH, 16 mg cetyltrimethylammonium chloride, and 15 mg 4-MeC6H4SO3Et in aqueous CH2Cl2 was stirred 20 h at room temperature to give 4.8 mg II (R = Et, R1 = C1).

IT 72902-38-6

RL: RCT (Reactant); RACT (Reactant or reagent)
 (etherification of)

RN 72902-38-6 CAPLUS

CN Maytansine, 2'-de(acetylmethylamino)-020-demethyl-2'-methyl- (9CI) (CA INDEX NAME)

OSC.G 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)

L19 ANSWER 15 OF 18 CAPLUS COPYRIGHT 2009 ACS on STN

AN 1981:515624 CAPLUS Full-text

DN 95:115624

OREF 95:19413a,19416a

TI Maytansinoids and their use

IN Miyashita, Osamu; Hiroshi, Akimoto

PA Takeda Chemical Industries, Ltd., Japan

SO Eur. Pat. Appl., 32 pp.

CODEN: EPXXDW

DT Patent

LA English

FAN.CNT 2

	·				
PATE	INT NO.	KIND	DATE	APPLICATION NO.	DATE
PI EP 2	:5496	A1	19810325	EP 1980-104413	19800726
	R: AT, BE, CH,	DE, FR	, GB, IT, LU	, NL, SE	
JP 5	6020592	A	19810226	JP 1979-97779	19790730
JP 5	7004993	A	19820111	JP 1980-78142	19800609
JP 0	1014237	В	19890310		
PRAI JP 1	.979-97779	A	19790730		
JP 1	.980-78142	A	19800609		
OS MARP	AT 95:115624				
GI					

Ι

AB Maytansinoid ethers I (R = H, Cl; R1 = optionally substituted alkyl; R2 = alkyl) were prepared Thus ansamytocin P-3 was fermentatively demethylated to give I (R = Cl, R1 = H, R2 = CHMe2), which was etherified with PhCH2Br to give I (R = Cl, R1 = CH2Ph, R2 = CHMe2; II). II had a min. inhibitory concentration against Tetrahymena pyriformis W of <1 μ g/mL and at 25 μ g/kg day i.p. for 9 days increased the survival time of melanoma B-16-infected mice by 182%.

IT 72902-38-6P 72902-46-6P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and etherification of)

RN 72902-38-6 CAPLUS

CN Maytansine, 2'-de(acetylmethylamino)-020-demethyl-2'-methyl- (9CI) (CA INDEX NAME)

RN 72902-46-6 CAPLUS

CN Maytansine, 2'-de(acetylmethylamino)-19-dechloro-020-demethyl-2'-methyl-(9CI) (CA INDEX NAME)

L19 ANSWER 16 OF 18 CAPLUS COPYRIGHT 2009 ACS on STN

AN 1981:497867 CAPLUS Full-text

DN 95:97867

OREF 95:16451a,16454a

TI Maytansinoids and their use

IN Miyashita, Osamu; Akimoto, Hiroshi

PA Takeda Chemical Industries, Ltd., Japan

SO Eur. Pat. Appl., 20 pp.

CODEN: EPXXDW

DT Patent

LA English

FAN.CNT 1

FAN.	CMT	Τ																
	PATENT NO.				KIND		DATE			APPLICATION NO.					DAT	DATE		
							-			_								
ΡI	ΕP	2510	8			A1		1981	0318	E	ŀΡ	1980-	-1044	162		198	300729	
	EP	2510	8			В1		1983	0209									
		R:	AT,	BE,	CH,	DE,	FR	, GB,	ΙΤ,	LU,	NI	, SE						
	JΡ	5602	2790			А		1981	0303	J	Ρ	1979-	-9801	L O		197	790731	
	AT	2432				T		1983	0315	А	T	1980-	-1044	162		198	300729	
	CA	1148	489			A1		1983	0621	С	Ά	1980-	-3573	361		198	300730	
PRAI	JΡ	1979	-980	10		A		1979	0731									
	ΕP	1980	-104	462		Α		1980	0729									
OS	MAI	RPAT	95:9	7867														
GI																		

AB Maytansinoid sulfonates I (R = SO2R3; R1 = alkyl; R2 = H, C1; R3 = alkyl, aralkyl, optionally substituted Ph) were prepared Thus ansamitocin P-3 was demethylated fermentatively to I (R = H, R1 = CHMe2, R2 = C1) which was treated with MeSO2C1 to give I (R = SO2Me, R1 = CHMe2, R2 = C1). At 6.2 μ g/kg day i.p. for 9 days the latter compound increased the survival time of melanoma B-16-infected mice to 154%. I (R = SO2C6H4R4-4, R1 = CHMe2, R2 = C1, R4 = Me, C1, NH2) had min. inhibitory concns. of 1-4 μ g/mL against Tetrahymena pyriformis W.

IT 72902-38-6P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and sulfonylation of)

RN 72902-38-6 CAPLUS

CN Maytansine, 2'-de(acetylmethylamino)-O20-demethyl-2'-methyl- (9CI) (CA INDEX NAME)

IT 72902-46-6P

RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation of)

RN 72902-46-6 CAPLUS

CN Maytansine, 2'-de(acetylmethylamino)-19-dechloro-020-demethyl-2'-methyl-(9CI) (CA INDEX NAME)

L19 ANSWER 17 OF 18 CAPLUS COPYRIGHT 2009 ACS on STN

AN 1981:443191 CAPLUS Full-text

DN 95:43191

OREF 95:7397a,7400a

TI 20-0-Acylmaytansinoids, and pharmaceutical compositions containing them

IN Asai, Mitsuko; Izawa, Motowo; Nakahama, Kazuo

PA Takeda Chemical Industries, Ltd., Japan

SO Eur. Pat. Appl., 126 pp.

CODEN: EPXXDW

DT Patent

LA English

FAN.CNT 1

	J = 1 =	_														
	PATENT NO.					KINI)	DATE		APPLICATION NO.				DATE		
							_							 		
ΡI	EP	1440	2			A1		1980	0820	EP	1980-	-1004	12	19800	128	
	EP	1440	2			В1		1983	0720							
		R:	ΑT,	BE,	CH,	DE,	FR	, GB,	ΙΤ,	LU, NI	L, SE					
	JΡ	5510	2583			Α		1980	0805	JP	1979-	-1055	1	19790	131	
	US	4294	757			Α		1981	1013	US	1980-	-1122	37	19800	115	
	CA	1131	629			A1		1982	0914	CA	1980-	-3446	92	19800	130	
PRAI	JΡ	1979	-1055	51		Α		1979	0131							

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

OS MARPAT 95:43191

GΙ

AB Maytansinoids I (R = H, acyl; R1 = acyl; R2 = H, C1) were prepared Thus I (R = COCHMe2, R1 = H, R2 = C1) was acetylated to give I (R = COCHMe2, R1 = Ac, R2 = C1). The starting materials were prepared from ansamitocin and some prepns. involved incubation with appropriate bacteria.

IT 72902-47-7 72937-57-6

RL: RCT (Reactant); RACT (Reactant or reagent)
 (hydride reduction of)

RN 72902-47-7 CAPLUS

CN Maytansine, O20-demethyl- (9CI) (CA INDEX NAME)

RN 72937-57-6 CAPLUS

CN Maytansine, O20-demethyl-, (2'R)- (9CI) (CA INDEX NAME)

IT 72902-47-7P 72937-57-6P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and acylation of)

RN 72902-47-7 CAPLUS

CN Maytansine, O20-demethyl- (9CI) (CA INDEX NAME)

RN 72937-57-6 CAPLUS

CN Maytansine, O20-demethyl-, (2'R)- (9CI) (CA INDEX NAME)

IT 72902-36-4P 72902-46-6P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and hydride reduction of)

RN 72902-36-4 CAPLUS

CN Maytansine, 2'-de(acetylmethylamino)-020-demethyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.

RN 72902-46-6 CAPLUS

CN Maytansine, 2'-de(acetylmethylamino)-19-dechloro-020-demethyl-2'-methyl-(9CI) (CA INDEX NAME)

Absolute stereochemistry. Double bond geometry as shown.

IT 72902-34-2P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and reduction of)

RN 72902-34-2 CAPLUS

CN Maytansine, 3-de[2-(acetylmethylamino)-1-oxopropoxy]-020-demethyl-3-(3-methyl-1-oxobutoxy)- (9CI) (CA INDEX NAME)

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ΙT
     72902-38-6P
                   72902-42-2P
                                  72902-48-8P
     72902-49-9P
                   72902-50-2P
                                  72902-51-3P
     72902-52-4P
                   72902-53-5P
                                  72902-67-1P
     72902-68-2P
                   72911-47-8P
                                  72925-67-8P
     72937-58-7P
                   72938-06-8P
                                  72938-07-9P
     76959-54-1P
     RL: SPN (Synthetic preparation); PREP (Preparation)
        (preparation of)
RN
     72902-38-6 CAPLUS
     Maytansine, 2'-de(acetylmethylamino)-020-demethyl-2'-methyl- (9CI) (CA
CN
```

Absolute stereochemistry. Double bond geometry as shown.

INDEX NAME)

RN 72902-42-2 CAPLUS
CN Maytansine, 3-de[2-(acetylmethylamino)-1-oxopropoxy]-020-demethyl-3-[(1-oxohexyl)oxy]- (9CI) (CA INDEX NAME)

RN 72902-48-8 CAPLUS

CN Maytansine, N2'-deacetyl-O20-demethyl-N2'-(2-methyl-1-oxopropyl)- (9CI) (CA INDEX NAME)

RN 72902-49-9 CAPLUS

CN Maytansine, N2'-deacetyl-O20-demethyl-N2'-(3-methyl-1-oxobutyl)-, (2'R)- (9CI) (CA INDEX NAME)

RN 72902-50-2 CAPLUS

CN Maytansine, 3-de[2-(acetylmethylamino)-1-oxopropoxy]-020-demethyl-3-[(1-oxopentyl)oxy]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.

RN 72902-51-3 CAPLUS

CN Maytansine, 3-de[2-(acetylmethylamino)-1-oxopropoxy]-020-demethyl-3-[(1-oxoheptyl)oxy]- (9CI) (CA INDEX NAME)

RN 72902-52-4 CAPLUS

CN Maytansine, 3-de[2-(acetylmethylamino)-1-oxopropoxy]-020-demethyl-3-[(1-oxooctyl)oxy]- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Double bond geometry as shown.

RN 72902-53-5 CAPLUS

CN Maytansine, 2'-de(acetylmethylamino)-020-demethyl-3'-phenyl- (9CI) (CA INDEX NAME)

RN 72902-67-1 CAPLUS CN Maytansine, N2',O20-didemethyl-N2'-(phenylmethyl)- (9CI) (CA INDEX NAME)

RN 72902-68-2 CAPLUS
CN Maytansine, O20-demethyl-3'-phenyl- (9CI) (CA INDEX NAME)

RN 72911-47-8 CAPLUS

CN Maytansine, N2'-deacetyl-O20-demethyl-N2'-(1-oxopropyl)- (9CI) (CA INDEX NAME)

RN 72925-67-8 CAPLUS

CN Maytansine, 3-[[2-(acetylmethylamino)-4-methyl-1-oxopentyl]oxy]-3-de[2-(acetylmethylamino)-1-oxopropoxy]-020-demethyl- (9CI) (CA INDEX NAME)

RN 72937-58-7 CAPLUS

CN Maytansine, N2'-deacetyl-O20-demethyl-N2'-(2-methyl-1-oxopropyl)-, (2'R)- (9CI) (CA INDEX NAME)

RN 72938-06-8 CAPLUS

CN Maytansine, N2'-deacetyl-O20-demethyl-N2'-(1-oxopropyl)-, (2'R)- (9CI) (CA INDEX NAME)

RN 72938-07-9 CAPLUS

CN Maytansine, N2'-deacetyl-O20-demethyl-N2'-(3-methyl-1-oxobutyl)- (9CI) (CA INDEX NAME)

RN 76959-54-1 CAPLUS

CN Maytansine, 19-dechloro-O20-demethyl-, (2'R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.

OSC.G 4 THERE ARE 4 CAPLUS RECORDS THAT CITE THIS RECORD (4 CITINGS)

L19 ANSWER 18 OF 18 CAPLUS COPYRIGHT 2009 ACS on STN

AN 1980:111076 CAPLUS Full-text

DN 92:111076

OREF 92:18137a,18140a

TI Demethyl maytansinoids and their uses

IN Mitsuko, Asai; Kazuo, Nakahama; Motowo, Izawa

PA Takeda Chemical Industries, Ltd., Japan

SO Eur. Pat. Appl., 129 pp.

CODEN: EPXXDW

DT Patent

LA English

FAN.CNT 3

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
ΡI	EP 4466 EP 4466	A1 B1	19791003 19820127	EP 1979-300469	19790323
	R: BE, CH, DE,	FR, GB	, IT, NL, SE		
	JP 54128598	A	19791005	JP 1978-34645	19780324
	JP 55085592	A	19800627	JP 1978-160787	19781222
	JP 62013958	В	19870330		
	AU 7945246	A	19790927	AU 1979-45246	19790319
	AU 519911	В2	19820107		
	CA 1144096	A1	19830405	CA 1979-323717	19790319
	ZA 7901350	A	19800430	ZA 1979-1350	19790321
	PL 124051	В1	19821231	PL 1979-214307	19790322
	DK 7901212	A	19790925	DK 1979-1212	19790323
	AT 7902191	A	19801115	AT 1979-2191	19790323
	AT 362872	В	19810625		
PRAI	JP 1978-34645		19780324		
	JP 1978-160787		19781222		
OS	MARPAT 92:111076				
GI					

Demethylmaytansinoids I (R = H, acyl; R1 = H, Cl) were prepared Thus, 68 mg I (R = COCH2CHMe2, R1 = Cl, II) was obtained by demethylating 110 mg ansamitocin P-4 with Bacillus megaterium IFO 12108. II gave an inhibition zone of 24 mm against Hamigera avellanea in the paper disk method, impregnated with 0.2 mL of 100 μ g/mL solution II had a protozoacidal min. inhibitory concentration against Tetrahymena pyriformis W of 1 μ g/mL.

IT 72902-34-2P 72902-36-4P 72902-38-6P 72902-42-2P 72902-48-8P 72902-69-3P

72911-47-8P 72938-07-9P

RL: SPN (Synthetic preparation); PREP (Preparation) (preparation and fungicidal and protozoacidal activity of)

RN 72902-34-2 CAPLUS

CN Maytansine, 3-de[2-(acetylmethylamino)-1-oxopropoxy]-020-demethyl-3-(3-maytansine)

Absolute stereochemistry. Double bond geometry as shown.

RN 72902-36-4 CAPLUS
CN Maytansine, 2'-de(acetylmethylamino)-O20-demethyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Double bond geometry as shown.

RN 72902-38-6 CAPLUS CN Maytansine, 2'-de(acetylmethylamino)-O20-demethyl-2'-methyl- (9CI) (CA INDEX NAME)

RN 72902-42-2 CAPLUS

CN Maytansine, 3-de[2-(acetylmethylamino)-1-oxopropoxy]-020-demethyl-3-[(1-oxohexyl)oxy]- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Double bond geometry as shown.

RN 72902-48-8 CAPLUS

CN Maytansine, N2'-deacetyl-O20-demethyl-N2'-(2-methyl-1-oxopropyl)- (9CI) (CA INDEX NAME)

RN 72902-69-3 CAPLUS

CN Maytansine, 3-0-de[2-(acetylmethylamino)-1-oxopropyl]-20-0-demethyl-3-0-(1-oxobutyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Double bond geometry as shown.

RN 72911-47-8 CAPLUS

CN Maytansine, N2'-deacetyl-O20-demethyl-N2'-(1-oxopropyl)- (9CI) (CA INDEX NAME)

RN 72938-07-9 CAPLUS

CN Maytansine, N2'-deacetyl-O20-demethyl-N2'-(3-methyl-1-oxobutyl)- (9CI) (CA INDEX NAME)

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ΙT
     72902-49-9P
                  72902-50-2P
                                72902-51-3P
                  72902-53-5P
                                 72902-67-1P
     72902-52-4P
     72902-68-2P
                   72925-67-8P
                                 72937-58-7P
     72937-59-8P
                   72938-06-8P
                                 72938-08-0P
     RL: SPN (Synthetic preparation); PREP (Preparation)
        (preparation of)
     72902-49-9 CAPLUS
RN
CN
    May tansine, N2'-deacetyl-020-demethyl-N2'-(3-methyl-1-oxobutyl)-, (2'R)-
     (9CI) (CA INDEX NAME)
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RN 72902-50-2 CAPLUS

CN Maytansine, 3-de[2-(acetylmethylamino)-1-oxopropoxy]-020-demethyl-3-[(1-oxopentyl)oxy]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.

RN 72902-51-3 CAPLUS

CN Maytansine, 3-de[2-(acetylmethylamino)-1-oxopropoxy]-020-demethyl-3-[(1-oxoheptyl)oxy]- (9CI) (CA INDEX NAME)

RN 72902-52-4 CAPLUS

CN Maytansine, 3-de[2-(acetylmethylamino)-1-oxopropoxy]-020-demethyl-3-[(1-oxooctyl)oxy]- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Double bond geometry as shown.

RN 72902-53-5 CAPLUS

CN Maytansine, 2'-de(acetylmethylamino)-020-demethyl-3'-phenyl- (9CI) (CA INDEX NAME)

RN 72902-67-1 CAPLUS CN Maytansine, N2',O20-didemethyl-N2'-(phenylmethyl)- (9CI) (CA INDEX NAME)

RN 72902-68-2 CAPLUS
CN Maytansine, O20-demethyl-3'-phenyl- (9CI) (CA INDEX NAME)

72925-67-8 CAPLUS RN

Maytansine, 3-[[2-(acetylmethylamino)-4-methyl-1-oxopentyl]oxy]-3-de[2-CN (acetylmethylamino)-1-oxopropoxy]-020-demethyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Double bond geometry as shown.

RN

72937-58-7 CAPLUS
Maytansine, N2'-deacetyl-O20-demethyl-N2'-(2-methyl-1-oxopropyl)-, (2'R)-CN (9CI) (CA INDEX NAME)

RN 72937-59-8 CAPLUS
CN Maytansine, N2',O20-didemethyl-N2'-(phenylmethyl)-, (2'R)- (9CI) (CA INDEX NAME)

RN 72938-06-8 CAPLUS
CN Maytansine, N2'-deacetyl-020-demethyl-N2'-(1-oxopropyl)-, (2'R)- (9CI) (CA INDEX NAME)

RN 72938-08-0 CAPLUS

CN Maytansine, O20-demethyl-3'-phenyl-, (2'R)- (9CI) (CA INDEX NAME)

IT 72902-46-6P 72902-47-7P 72937-57-6P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation, hydrolysis, and fungicidal and protozoacidal activity of)

RN 72902-46-6 CAPLUS

CN Maytansine, 2'-de(acetylmethylamino)-19-dechloro-020-demethyl-2'-methyl-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.

RN 72902-47-7 CAPLUS

CN Maytansine, O20-demethyl- (9CI) (CA INDEX NAME)

RN 72937-57-6 CAPLUS

CN Maytansine, O20-demethyl-, (2'R)- (9CI) (CA INDEX NAME)

=> d 12; d 16; d 111; d 116; d his; log y L2 HAS NO ANSWERS L1 STR

Structure attributes must be viewed using STN Express query preparation. L2 $$\tt QUE $\tt ABB=ON $\tt PLU=ON $\tt L1$$

L6 HAS NO ANSWERS L5 STR

Structure attributes must be viewed using STN Express query preparation. L6 $$\tt QUE $\tt ABB=ON $\tt PLU=ON $\tt L5$$

L11 HAS NO ANSWERS L10 STR

Structure attributes must be viewed using STN Express query preparation. L11 $$\tt QUE $\tt ABB=ON $\tt PLU=ON $\tt L10$$

L16 HAS NO ANSWERS L15 STR

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Structure attributes must be viewed using STN Express query preparation.
L16
                QUE ABB=ON PLU=ON L15
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     FILE 'REGISTRY' ENTERED AT 18:19:46 ON 15 DEC 2009
                STRUCTURE UPLOADED
L1
L2
                QUE L1
L3
              0 S L2
              0 S L2 FUL
L4
     FILE 'STNGUIDE' ENTERED AT 18:20:38 ON 15 DEC 2009
     FILE 'REGISTRY' ENTERED AT 18:29:06 ON 15 DEC 2009
L5
                STRUCTURE UPLOADED
L6
                OUE L5
L7
              0 S L6
L8
              4 S L6 FUL
     FILE 'CAPLUS' ENTERED AT 18:29:55 ON 15 DEC 2009
              2 S L8
L9
     FILE 'REGISTRY' ENTERED AT 18:33:14 ON 15 DEC 2009
L10
                STRUCTURE UPLOADED
L11
                QUE L10
L12
              0 S L11
              6 S L11 FUL
L13
     FILE 'CAPLUS' ENTERED AT 18:33:45 ON 15 DEC 2009
     FILE 'REGISTRY' ENTERED AT 18:33:56 ON 15 DEC 2009
     FILE 'CAPLUS' ENTERED AT 18:34:00 ON 15 DEC 2009
L14
              2 S L13
     FILE 'STNGUIDE' ENTERED AT 18:34:55 ON 15 DEC 2009
     FILE 'REGISTRY' ENTERED AT 18:36:32 ON 15 DEC 2009
L15
                STRUCTURE UPLOADED
L16
                QUE L15
L17
              0 S L16
L18
             43 S L16 FUL
     FILE 'CAPLUS' ENTERED AT 18:37:29 ON 15 DEC 2009
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COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	102.52	875.47
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	-14.76	-18.04

STN INTERNATIONAL LOGOFF AT 18:38:45 ON 15 DEC 2009

18 S L18

L19